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International Specialists in the Environmental Sciences

DATE : March 10, 1983
TO : Michael C. O'Toole, On-Scene Coordinator
FROM : Ron St. John, FIT Region V *RBSJ*
SUBJECT: Results and Conclusions of the Preliminary Site
Investigation at Sauget Landfill, Sauget, Illinois
TDD#R5-8202-05.

The Sauget Landfill was visited by Jerry Kelly (FIT) and I on Tuesday, March 8, 1983, to determine the applicability of remote sensing techniques and soil coring to locate buried drums and chemical contamination. At the time of the site visit we also had planned to perform a magnetometer survey utilizing Ecology and Environment's (E & E) EG & G Geometrics G-856 magnetometer, but, high voltage power lines running through and along the site prevented its use. We were, however, able to make an inspection of the site on foot to determine soil types in preparation for further remote sensing techniques.

The results of this inspection are:

- 1). Soils at the site are coarse grained (sand and gravel) and should be penetrated easily by Ground Penetrating Radar (GPR);
- 2). Slag, cinder and ash covers most of the site and its typically high metal content would most likely prevent the use of pipe and cable finders (metal detectors) in locating buried drums.

3). Even though the Geometrics magnetometer could not be used because of power lines, railroad tracks and metal fences at the site, more sophisticated magnetometers are available which null out the effects of such interferences.

Subcontracting for GPR, magnetometry, and soil borings should therefore, be initiated to outline areas of buried drums and to obtain soil samples for chemical analyses.

RSJ/pj